

CLAIMS

1. A method for producing an optical compensating sheet, comprising a step of simultaneously coating at least two coating solutions on a transparent support, wherein at least one of the coating solutions simultaneously coated in said step contains a liquid crystalline compound, and another coating solution of the coating solutions contains a surface active agent.

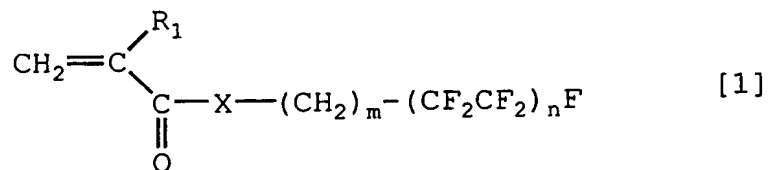
2. The method as claimed in claim 1, wherein the surface active agent is a fluorine-containing surface active agent.

3. The method as claimed in claim 2, wherein the surface active agent is a fluorine-containing copolymer.

4. The method as claimed in claim 3, wherein the surface active agent is a fluoroaliphatic group-containing copolymer containing a repeating unit derived from the following monomer (i) and a repeating unit derived from the following monomer (ii):

(i) a fluoroaliphatic group-containing monomer represented by the following formula [1], and

(ii) a poly(oxyalkylene) acrylate and/or a poly(oxyalkylene) methacrylate:



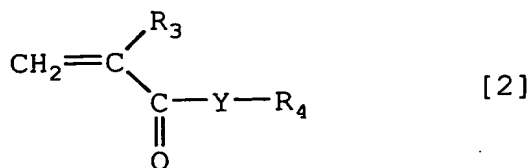
wherein R₁ represents a hydrogen atom or a methyl group, X represents an oxygen atom, a sulfur atom or -N(R₂)-, m represents an integer of 1 to 6, n represents an integer of 2 to 4, and R₂ represents a hydrogen atom or an alkyl group having from 1 to 4 carbon atoms.

5. The method as claimed in claim 3, wherein the surface active agent is a fluoroaliphatic group-containing copolymer containing a repeating unit derived from the following monomer (i), a repeating unit derived from the following monomer (ii) and a repeating unit derived from the following monomer (iii):

(i) a fluoroaliphatic group-containing monomer represented by formula [1] described in claim 4,

(ii) a poly(oxyalkylene) acrylate and/or a poly(oxyalkylene) methacrylate, and

(iii) a monomer copolymerizable with (i) and (ii) and represented by the following formula [2]:



wherein R₃ represents a hydrogen atom or a methyl group, Y

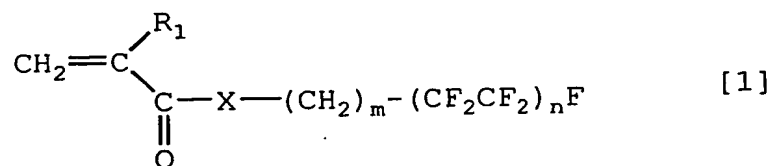
represents a divalent linking group, and R₄ represents a linear, branched or cyclic alkyl group having from 4 to 20 carbon atoms, which may have a substituent.

6. An optical compensating sheet produced by the method described in any one of claims 1 to 5.

7. An optical film comprising a support having thereon an optically anisotropic layer comprising a liquid crystalline compound, wherein said optically anisotropic layer comprises a fluoroaliphatic group-containing copolymer containing a repeating unit derived from the following monomer (i) and a repeating unit derived from the following monomer (ii):

(i) a fluoroaliphatic group-containing monomer represented by the following formula [1], and

(ii) a poly(oxyalkylene) acrylate and/or a poly(oxyalkylene) methacrylate:



wherein R₁ represents a hydrogen atom or a methyl group, X represents an oxygen atom, a sulfur atom or -N(R₂)-, m represents an integer of 1 to 6, n represents an integer of 2 to 4, and R₂ represents a hydrogen atom or an alkyl group

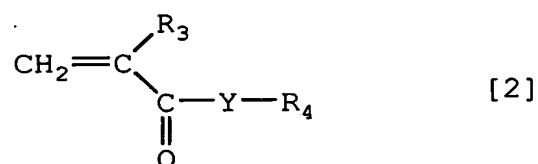
having from 1 to 4 carbon atoms.

8. The optical film as claimed in claim 7, wherein said optically anisotropic layer comprises a fluoroaliphatic group-containing copolymer containing a repeating unit derived from the following monomer (i), a repeating unit derived from the following monomer (ii) and a repeating unit derived from the following monomer (iii):

(i) a fluoroaliphatic group-containing monomer represented by formula [1] described in claim 7,

(ii) a poly(oxyalkylene) acrylate and/or a poly(oxyalkylene) methacrylate, and

(iii) a monomer copolymerizable with (i) and (ii) and represented by the following formula [2]:



wherein R_3 represents a hydrogen atom or a methyl group, Y represents a divalent linking group, and R_4 represents a linear, branched or cyclic alkyl group having from 4 to 20 carbon atoms, which may have a substituent.

9. The optical film as claimed in claim 7 or 8, wherein said liquid crystalline compound is a discotic compound.

10. A polarizing plate comprising the optical compensating sheet claimed in claim 6 or the optical film claimed in any one of claims 7 to 9.

11. A liquid crystal display device comprising the optical compensating sheet claimed in claim 6 or the optical film claimed in any one of claims 7 to 9.

12. A polarizing plate comprising a polarizing film and protective films disposed on both sides of the polarizing film, wherein one of the protective films is an optical compensating sheet having an optically anisotropic layer comprising a liquid crystalline compound, and said optical compensating sheet is the optical compensating sheet claimed in claim 6.

13. A liquid crystal display device comprising a liquid crystal cell and two polarizing plates disposed on both sides of the liquid crystal cell, wherein at least one of the polarizing plates is the polarizing plate claimed in claim 10 or 12.

14. The liquid crystal display device as claimed in claim 13, wherein the liquid crystal cell is a TN-mode, bend alignment-mode or vertical alignment-mode liquid

crystal cell.